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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,923	06/07/2006	Hidechiro Ishizuka	8007-1110	1902
466 7590 07/16/2007 YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER CHOI, LING SIU	
			ART UNIT	PAPER NUMBER
			1713	
			MAIL DATE	DELIVERY MODE
			07/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/581,923

Applicant(s)

ISHIZUKA ET AL.

Examiner

Ling-Siu Choi

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/05/06 and 06/07/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This Office Action is in response to the Preliminary Amendment filed **06/07/2006**.

Claims 1-7 were canceled and claims 8-21 have been added. Claims 8-21 are now pending.

**Claim Analysis**

2. Summary of claim 8:

A vinyl chloride resin composition comprising	
<b>a vinyl chloride resin</b>	100 parts by mass
<b>a co-ground mixture:</b>	
<p>(a) of at least one member selected from the group consisting of an <b>organic phosphoric ester</b> compound and a salt thereof represented by general formula (I):</p> <div style="text-align: center;"> </div> <p><u>R<sub>1</sub></u>, <u>R<sub>2</sub></u>, and <u>R<sub>3</sub></u> are hydrogen atom or a straight-chain or branched alkyl group having 1 to 18 carbon atoms;</p> <p><u>R<sub>4</sub></u> is a hydrogen atom or a methyl group;</p> <p><u>n</u> = 1 or 2;</p> <p><u>M</u> = hydrogen atom or an alkali metal atom when <u>n</u> is 1, or</p> <p><u>M</u> = an alkaline earth metal atom or a zinc atom <u>when n is 2</u></p>	0.001 -10 parts by mass
(b) of a grinding aid	0.001 -10 parts by mass

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

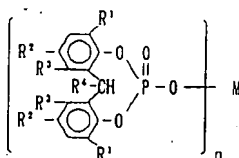
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8-13 and 15-16- are rejected under 35 U.S.C. 102(b) as being anticipated by Sugita et al. (JP 10-251469).

Sugita et al. disclose a composition for stretch film having excellent scorch resistance, comprising (A) 100 parts by weight of **PVC resin**, (B) 10-50 parts by weight of an adipate plasticizer, (C) 0.01-5 parts by weight of **zinc carboxylate**, (D) 0.001-10 parts by weight of a **cyclic organic phosphoric ester** compound, and optionally, (E) 0.01-5 parts by weight of **calcium carboxylate**, wherein the cyclic organic phosphoric ester compound is represented in the general formula of

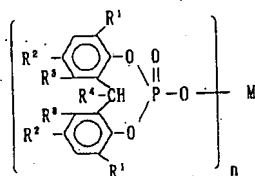


Art Unit: 1713

wherein  $R^1 - R^3$  are each H or  $C_{1-18}$  alkyl;  $R^4$  is H or  $CH_3$ ; M is an alkali metal when n is 1; M is an alkaline earth metal or Zn when n is 2 (abstract). It is noted that either calcium carboxylate or zinc carboxylate reads on the grinding aid. Thus, the present claims are anticipated by the disclosure of Sugita et al.

5. Claims 1-13 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyazawa et al. (JP 10-251445).

Miyazawa et al. disclose a composition comprising 100 parts by weight of a **polyvinyl chloride** resin and 0.001-5 parts by weight of a **cyclic organic phosphoric ester** compound which is represented in the general formula of

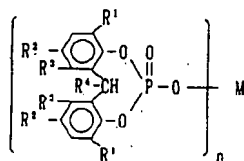


wherein  $R^1 - R^3$  are each H or  $C_{1-18}$  alkyl;  $R^4$  is H or  $CH_3$ ; M is an alkali metal when n is 1; M is an alkaline earth metal or Zn when n is 2 (abstract). attention is drawn to [0061], wherein 0.5 parts by weight of **zinc stearate** and 1.0 part by weight of **barium stearate** is compound with 100 parts by weight of polyvinyl chloride. Thus, the present claims are anticipated by the disclosure of Miyazawa et al.

6. Claims 8-13 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishizuka et al. (JP 10-251470).

Art Unit: 1713

Ishizuka et al. disclose a composition comprising (A) 100 parts by weight of **PVC**, (B) 0.001-10 parts by weight of a **cyclic organic phosphoric ester** compound, (C) 0.1-10 parts by weight of a thermally decomposable organic blowing agent, and optionally (D) 20-150 parts by weight of a plasticizer, wherein the cyclic organic phosphoric ester compound is represented in the general formula of



wherein  $R^1 - R^3$  are each H or C<sub>1-18</sub> alkyl;  $R^4$  is H or CH<sub>3</sub>; M is an alkali metal when n is 1; M is an alkaline earth metal or Zn when n is 2 (abstract). Attention is directed to [0048], wherein 1 part by weight of **hydrotalcite** and 0.5 part by weight of **zinc acetate** are compound with 100 parts by weight of PVC. Either hydrotalcite or zinc acetate reads on the grinding aid. Thus, the present claims are anticipated by the disclosure of Ishizuka et al.

7. Claims 8-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kimura et al. [US 2004/0166163 A1 (JP 2001-220464)].

Kimura et al. disclose a composition for a medical tool, comprising (A) a vinyl chloride resin, (B) a cyclic organic phosphoric ester compound, and (C) a pyrrhione compound, wherein the cyclic organic phosphoric ester compound is represented in the general formula of

Art Unit: 1713

wherein  $R^1 - R^3$  each represent H or  $C_{1-18}$  straight-chain or branched alkyl group;  $R^4$  represents H or  $CH_3$ ; M represents an alkali metal when n is 1; M represents an alkaline earth metal or Zn when n is 2 (claim 1). Kimura et al. further disclose that the amount of **cyclic organic phosphoric ester** compound is 0.005-10 parts by weight per 100 parts by weight of **PVC** ([0022]). Attention is drawn to Example 2, wherein 1.0 parts by weight of synthetic **hydrotalcite** and 0.5 part by weight of **zinc stearate** are compounded with 100 parts by weight of polyvinyl chloride. Kimura et al. further disclose that "[a] preferred particle size, while not particularly limited, is 0.1 to 100  $\mu m$  in order not to reduce the characteristics of the vinyl chloride resin. When the powder is added to the vinyl chloride resin, it can be added as such ....." ([0032]). It is noted that either synthetic hydrotalcite or zinc stearate reads on a grinding aid. Thus, the present claims are anticipated by the disclosure of Kimura et al.

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114.

Application/Control Number: 10/581,923

Page 7

Art Unit: 1713



LING-SUI CHOI  
PRIMARY EXAMINER

July 7, 2007